

REMARKS

Claims 1, 5 and 9 have been amended, and claims 1-11 are pending and under consideration. No new matter is presented in this Amendment. Proper support for the amendment to claims 1 and 9 can be found in the specification at least at paragraphs [0033] and [0034]. As a result, entry of the forgoing amendment is proper under 37 C.F.R. §1.116(b) because these amendments simply respond to the issues raised in the final rejection, and the foregoing amendments are believed to remove the basis of the outstanding rejections, and to place all claims in condition for allowance.

REJECTIONS UNDER 35 U.S.C. §102:

Claims 1-11 are rejected under 35 U.S.C. §102(b) as being anticipated by Noda; Chosaku (U.S. Patent 6,175,686 B1).

Applicants respectfully traverse this rejection for at least the following reason.

Regarding the rejection of independent claim 1, it is noted that claim 1 recites an apparatus to record data on an optical information recording medium comprising, amongst other novel features, an error correction code (ECC) encoder which ECC-encodes main data to generate a plurality of ECC blocks, **each of the ECC blocks comprising sectors and each of the sectors having an identifier**; an interleaver which extracts and arranges the identifiers from ones of the ECC blocks to generate **a recording block** such that the **identifiers of different ECC blocks are alternately arranged in different sectors**.

In detail, the Office Action states that Noda teaches an ECC encoder which ECC-encodes main data to generate a plurality of ECC blocks, each of the ECC blocks comprising sectors and each of the sectors having an identifier. The Office Action further states that FIG. 6 of Noda illustrates an ECC block comprising 16 recording sectors. The Office Action states that FIG. 11 of Noda teaches error correction encoding from two ECC blocks and that an interleaver extracts and arranges the identifiers from ones of the ECC blocks to generate a recording block such that adjacent identifiers are of different ECC blocks (FIG. 14 and col. 12, lines 39-49 of Noda).

However, a review of Noda and the figures indicate that the recording block taught by Noda does not, in fact, teach or suggest the novel features recited in independent claim 1, notwithstanding the Examiner's statements to the contrary.

For example, FIG. 6 of Noda illustrates the structure of an error correction block of a standard format and thus does not teach or suggest **identifiers of different ECC blocks alternately arranged in different sectors**, as recited in independent claim 1.

FIG. 14 of Noda on the other hand illustrates a structure of an error correction block of a standard format and not of a **recording block** such that the **identifiers of different ECC blocks are alternately arranged in different sectors**, as recited in independent claim 1.

Noda does however teach recording blocks 28 in FIGS 16A through 16C. However, a detailed review of the description of these figures indicates that the recording blocks 28 disclosed by Noda do not include **identifiers of different ECC blocks alternately arranged in different sectors**, as recited in independent claim 1.

Noda discloses that the recording blocks are obtained by extracting one row of data 27a from a recording sector 27. Thereafter, as shown in FIG. 16B, the data 27a obtained by channel synthesis is byte-interleaved between 182 byte data in one row in units of bytes. The byte-interleaved data is divided in units of $n \times m = 182$ bytes, thereby generating recording blocks 28 as the second data blocks (column 13, lines 16-26). Noda further discloses that data is byte-interleaved between data of $n \times m$ bytes of the respective channels A and B in one-row data 27a of the error correction block 27 upon channel synthesis and that the sector IDs are gathered in the left recording block 28 in FIG. 16B which corresponds to the first one-row data 27a of the recording sector 27 in FIG. 15, similar to the left recording block 18 of the standard format shown in FIG. 8B (column 13, lines 44-54). In other words, Noda discloses forming a recording block 28 in which the identifiers are gathered in the left recording block 28 shown in FIG. 16B.

Noda does not teach or suggest an interleaver which extracts and arranges the identifiers from ones of the ECC blocks to generate a **recording block** such that the **identifiers of different ECC blocks are alternately arranged in different sectors** since all the identifiers disclosed by Noda are gathered at the beginning of the recording block.

Accordingly, Applicants respectfully assert that the rejection of independent claim 1 under 35 U.S.C. §102(e) should be withdrawn because Noda fails to teach or suggest each feature of

independent claim 1.

Furthermore, Applicants respectfully assert that dependent claims 2-4 are allowable at least because of their dependence from claim 1, and because they include additional features which are not taught or suggested by the prior art. Therefore, it is respectfully submitted that claims 2-4 also distinguish over the prior art.

Regarding the rejection of independent claim 5, it is noted that claim 5 recites an apparatus to record data on an optical information recording medium comprising, amongst other novel features, an interleaver which arranges an identifier included in the first sector of the first ECC block as a first identifier, arranges an identifier included in the first sector of the second ECC block as a second identifier, adjacent to the first identifier, arranges an identifier included in the second sector of the first ECC block as a third identifier, adjacent to the second identifier, arranges an identifier included in the second sector of the second ECC block as a fourth identifier, adjacent to the third identifier, arranges identifiers included in the remaining sectors of the first and second ECC blocks with the same algorithm, interleaves ECC-encoded main data in the first sectors of the first and second ECC blocks to sequentially correspond to the first arranged identifier and the second arranged identifier, interleaves ECC-encoded main data in the second sectors of the first and second ECC blocks to correspond to the third and fourth arranged identifiers, and interleaves ECC-encoded main data included in the remaining sectors of the first and second ECC blocks with the same algorithm to generate a recording block.

As noted above, Noda discloses forming a recording block 28 in which the identifiers are gathered in the left recording block 28 shown in FIG. 16B. Noda does not teach or suggest alternately arranging the identifiers from different sectors such that an identifier of a first sector of a first ECC block is adjacent to an identifier of a first sector of a second ECC block and so forth.

Accordingly, Applicants respectfully assert that the rejection of independent claim 5 under 35 U.S.C. §102(e) should be withdrawn because Noda fails to teach or suggest each feature of independent claim 5.

Furthermore, Applicants respectfully assert that dependent claims 6-8 are allowable at least because of their dependence from claim 5, and because they include additional features which are not taught or suggested by the prior art. Therefore, it is respectfully submitted that claims 6-8 also distinguish over the prior art.

Regarding the rejection of independent claim 9, it is noted that claim 9 recites an optical information reproducing apparatus comprising, amongst other novel features, a reading unit to read data from a recording block of an optical information recording medium, wherein **identifiers from different error correction code (ECC) blocks are alternately arranged in different sectors in the recording block**, each sector having a corresponding identifier.

As noted above, Noda discloses forming a recording block 28 in which the identifiers are gathered in the left recording block 28 shown in FIG. 16B. Noda does not teach or suggest alternately arranging the identifiers of sectors from different ECC blocks in a recording block.

Accordingly, Applicants respectfully assert that the rejection of independent claim 9 under 35 U.S.C. §102(e) should be withdrawn because Noda fails to teach or suggest each feature of independent claim 9.

Furthermore, Applicants respectfully assert that dependent claims 10-11 are allowable at least because of their dependence from claim 9, and because they include additional features which are not taught or suggested by the prior art. Therefore, it is respectfully submitted that claims 10-11 also distinguish over the prior art.

DOUBLE PATENTING

Claims 1-11 provisionally rejected on the ground of nonstatutory double patenting over claims 1-10 and 34-43 of copending Application No. 10/124366.

Since claims 1-11 of the instant application have not yet been indicated as allowable, it is believed that any submission of a Terminal Disclaimer or arguments as to the non-obvious nature of the claim would be premature. MPEP 804(I)(B).

As such, it is respectfully requested that the applicant be allowed to address any provisional obviousness-type double patenting issues remaining once the rejections of the claim under 35 U.S.C. § 102 are resolved.

Claims 1-11 provisionally rejected on the ground of nonstatutory double patenting over claims 1-10 and 34-43 of copending Application No. 10/828298.

Since claims 1-11 of the instant application have not yet been indicated as allowable, it is believed that any submission of a Terminal Disclaimer or arguments as to the non-obvious nature of the claim would be premature. MPEP 804(I)(B).

As such, it is respectfully requested that the applicant be allowed to address any provisional obviousness-type double patenting issues remaining once the rejections of the claim under 35 U.S.C. § 102 are resolved.

CONCLUSION:

There being no further outstanding objections or rejections, it is submitted that the application is in condition for allowance. An early action to that effect is courteously solicited.

Finally, if there are any formal matters remaining after this response, the Examiner is requested to telephone the undersigned to attend to these matters.

If there are any additional fees associated with filing of this Amendment, please charge the same to our Deposit Account No. 503333.

Respectfully submitted,

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